

WE CLAIM:

1. A printhead assembly which comprises
an elongate support structure; and
5 at least one printhead module positioned in the support structure, along a length of
the support structure, the, or each printhead module comprising
an ink feed member that defines a number of ink channels in fluid
communication with an ink supply, the ink feed member having a plurality of outlet
openings from which ink can be fed;
10 an ink delivery assembly that is positioned on the ink feed member, the ink
delivery assembly defining a mounting formation to permit a printhead chip to be
mounted on the ink delivery system, a plurality of ink inlets that are in fluid
communication with the outlet openings of the ink feed member, a plurality of exit
holes and tortuous ink flow paths from each ink inlet to a number of respective exit
15 holes; and
an elongate printhead chip that is mounted on the mounting formation, the
printhead chip incorporating a plurality of nozzle arrangements that extend along a
length of the chip, the printhead chip being positioned so that the ink can be fed
from the exit holes to the printhead chip.
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2. A printhead assembly as claimed in claim 1, in which the support structure is in the
form of an elongate channel member and the assembly includes a plurality of printhead
modules positioned in a channel defined by the channel member.
- 25 3. A printhead assembly as claimed in claim 2, in which the elongate channel member
is of a nickel iron alloy that is annealed to enhance dimensional stability.
4. A printhead assembly as claimed in claim 2, in which each ink feed member is in
the form of an extrusion of an elastomeric material, the channels extending longitudinally
30 in the extrusion and the outlet openings being holes defined in a surface of the extrusion to
be in fluid communication with respective ink channels.

5. A printhead assembly as claimed in claim 1, in which each ink delivery assembly includes a pair of micro-moldings that are positioned so that a lower micro-molding is interposed between an upper micro-molding and the ink feed member, the lower micro-molding defining a plurality of ink chambers in fluid communication with respective outlet
5 openings of the ink feed member, via the ink inlets, and the upper micro-molding defining the exit holes in fluid communication with the ink chambers.
6. A printhead assembly as claimed in claim 5, in which the micro-moldings are both
10 of a liquid crystal polymer.
7. A printhead assembly as claimed in claim 5, in which the ink delivery assembly includes a film member that is interposed between the upper and lower micro-moldings, the film member defining a plurality of openings to permit the passage of ink and the film member also having an adhesive layer on both sides of the film member so that the film
15 member serves to provide adhesion between the micro-moldings.
8. A printhead assembly as claimed in claim 1, in which the ink feed member defines an air channel and the ink delivery assembly defines an air path that terminates at an exhaust hole defined by the upper micro-molding so that air driven through the ink delivery
20 assembly from the air channel serves to repel a print medium from the printhead module during a printing operation.